ENERGY STAR® Emerging Technology Award Requirements: Advanced Dryers

Performance Characteristic	Requirements	Required Documentation
Product Performance		
Energy Efficiency[1]	EF ≥ 4.1, achievable in at least one temperature setting[2] EF ≥ 3.5, achievable in maximum temperature setting ≤ 75 minutes to finish one complete cycle in temperature setting that achieves EF ≥ 4.1[3]	Manufacturer documentation of test results consistent with DOE test method found in 10 CFR part 430, subpart B, appendix D[4]
Sensors	Temperature and moisture sensing controls, at a minimum	Manufacturer documentation based on definitions found in 10 CFR part 430, subpart B, appendix D.[5] Must include an engineering diagram showing the existence and location of sensing controls
Minimum Warranty Available (years)	One year parts and labor	Copy of warranty agreement
Certification	Must meet all safety requirements applicable for sale in the U.S.	Copy of certification case files
Additional Company Requirements		
Product Commercialization Plan	Required	Company must submit and EPA must approve a Product Commercialization Plan for the U.S. market that includes: market size, commercialization partners, targeted applications, targeted regions, and staffing plan to support plan implementation
Training and Installation Plan	Required	Company must submit and EPA must approve a Training and Installation Plan for the U.S. market that includes: company details on delivering technical training to installers

1 Energy Factor (EF) = Pounds of clothes washed (lbs) / kWh. Measured according to the U.S. Department of Energy (DOE) test method for Clothes Dryers (10 CFR part 430, subpart B, appendix D). Unless otherwise specified, compliance with specification limit shall be evaluated using exact values without any benefit from rounding.

2 For purposes of this requirement, the manufacturer may use the most energy efficient temperature setting (drying mode) with the DOE test method (instead of using the maximum temperature setting), to achieve an EF ≥ 4.1.

3 The amount of time needed to finish one complete cycle according to the DOE test method found in 10 CFR Part 430, subpart B, appendix D. "Cycle" means a sequence of operation of a clothes dryer which performs a clothes dryer operation, and may include variations or combinations of the functions of heating, tumbling and drying. For purposes of this requirement, the manufacturer must record the amount of time required to finish one complete cycle in the same temperature setting (drying mode) that achieves an EF ≥ 4.1.

4 For purposes of these requirements, the manufacturer may test a ventless clothes dryer, defined as "a clothes dryer that uses a closed-loop system with an internal condenser to remove the evaporated moisture from the heated air. The moist air is not discharged from the cabinet." The dryer shall be tested without the Association of Home Appliance Manufacturers (AHAM) exhaust simulator described in 3.3.5 of AHAM HLD-1. Those dryers having an option to be used both with and without a duct (vent) shall be tested without the exhaust simulator. If the manufacturer gives the option to use a ventless clothes dryer with or without a condensation box, the dryer shall be tested with the condensation box installed. For ventless clothes dryers, the condenser unit of the dryer must remain in place and not be taken out of the dryer for any reason between tests.

5 Definitions for these sensors are as follows:
"Temperature sensing control" means a system which monitors dryer exhaust air temperature and automatically terminates the dryer cycle.
"Moisture sensing control" means a system which utilizes a moisture sensing element within the dryer drum that monitors the amount of moisture in the clothes and automatically terminates the dryer cycle.